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## The Effects of Training on Teachers Perceptions of Inclusion of Students with Intellectual Disabilities

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THE EFFECTS OF TRAINING ON TEACHERS' PERCEPTIONS  
OF INCLUSION OF STUDENTS WITH  
INTELLECTUAL DISABILITIES

by

Kerin M. Vernier

A creative project submitted in partial fulfillment of the  
requirements for the degree

of  
MASTER OF EDUCATION  
in  
Special Education

Approved:

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Logan, Utah

2012

## **ABSTRACT**

### **The Effects of Training on Teachers' Perceptions of Inclusion of Students with Intellectual Disabilities**

by

Kerin M. Vernier, Master of Education

Utah State University, 2012

Major Professor: Dr. Robert Morgan  
Department: Special Education

In today's society, many general education and special education teachers struggle with the concept of inclusion of students with intellectual disabilities (ID) in the general education classroom setting and perceive that inclusion of ID students impedes the learning of others. The purpose of this project was to establish if a 60-min training session on the benefits of inclusion would alter teachers' perceptions of inclusion of children with ID in the general education setting as measured by a pre- and post-training rating scale. Forty-eight general education and special education school teachers participated. Of the 48 participants, 47 had special education experience and 33 had students with ID in their classroom this calendar school year. I developed and delivered a 60-min training module describing benefits of inclusion for students and ways that teachers can actively involve students with ID in general education classrooms. Differences in pre- and post-test scores determined whether participants altered their perception of inclusion. The results from the data I collected on the pre- and post-tests showed that inclusion training did alter teacher's perceptions of inclusion. On average, 51.36% of the general educators' ratings of statements changed from pre-test to post-test, and 42.88% of the special educator's ratings of statements changed from the pre-test to the post-test. Of the 22 general education participants, 93% of the changed ratings to the statements from pre-test to post-test were favorable to inclusion, while 7% were unfavorable to inclusion. Of the 26 special education participants, 91% of the changed ratings to the statements from pre-test to post-test were favorable to inclusion, and 9% were unfavorable to inclusion. Implications of my findings show that a 60-min inclusion training for educators is effective and can alter teacher's previous perceptions of the benefits of inclusion for all students.

## The Effects of Training on Teachers' Perceptions of Inclusion of Students with Intellectual Disabilities

In today's society, many general education and special education teachers struggle with the concept of inclusion of students with intellectual disabilities (ID) in the general education classroom setting and perceive that inclusion of ID students impedes the learning of others. ID is defined as "a disability characterized by significant limitations both in intellectual functioning and in adaptive behavior, which covers many everyday social and practical skills" (AAIDD, 2011). According to the Division for Early Childhood (DEC) and the National Association for the Education of Young Children (NAEYC)(2009), inclusion is defined as:

...practices that support the right of every infant and young child and his or her family, regardless of ability, to participate in a broad range of activities and contexts as full members of families, communities, and society. The desired results of inclusive experiences for children with and without disabilities and their families include a sense of belonging and membership, positive social relationships and friendships, and development and learning to reach their full potential (DEC/NAEYC, 2009. (p.1)

The defining features of inclusion that can be used to identify high quality early childhood programs and services are access, participation, and supports (DEC/NAEYC, 2009). The Individuals with Disabilities Education Act (IDEA) does not require inclusion, but the law requires that children with disabilities be educated in the "least restrictive environment appropriate" to meet their "unique needs" (IDEA, 2004). This implies that placement should begin in the general education setting with supports, as much as possible, and then move to a more restrictive setting as needed for each individual student. Many students can learn from one another in various settings, and with inclusion, teachers can provide opportunities for students to benefit from one another. However, IDEA recognizes that it is not appropriate to place all children in the general education classroom. There are numerous benefits of an inclusive education for students with or without ID (Tomko, 1996, [kidstogether.org](http://kidstogether.org)). Some benefits for students with disabilities are: (a) formulation of friendships, (b) increased social imitations, relationships, and networks; (c) peer role models for academic, social, and behavior skills; (d) increased school staff collaboration; and (e) increased parent participation. A few benefits for students without disabilities are: (a) increased appreciation and acceptance of individual differences; (b) respect for all people; and (c) increased understanding and acceptance of diversity (Tomko, 1996, [kidstogether.org](http://kidstogether.org)). The law states that the degree of inclusion should be driven by the student's needs as determined by the Individualized Education Program (IEP) and not necessarily just by the school district or parents (Wisconsin Education Association Council (WEAC), 2008). All children with disabilities are to be educated to the "maximum extent" with children who do not have disabilities (IDEA Sec. 612.5 A). The responsibility of including students with intellectual disabilities (ID) should fall on the special education and general education teachers. Special education teachers need to ensure that students are receiving a free and appropriate public education and the needs of the student is being met.

As general and special education teacher's work together to include students with ID in an appropriate setting, it is important to understand their perceptions of inclusion so the student will be given the support needed to succeed in reaching their individual goals. This is important as we strive to meet not only the needs of our students, but the needs of teachers in their endeavor of educating students in the most effective way possible.

## **Literature Review**

I searched multiple sources for articles relating to teachers' perceptions of inclusion of children with ID in the general education setting, including Google Scholar, the EBSCO host database (ERIC and Academic Search Premier), articles recommended by committee members, and reference sections from relevant articles. Based on these searches, I found 38 articles about training on inclusion with general education teachers. However, only four were related to teacher perceptions of inclusion of students with disabilities. Therefore, I limited my literature review to these four articles (Daane, Beirne-Smith, & Latham, 2000; Jobe, Rust, & Brissie, 1996; Monahan, Marino, & Miller, 1996; Vidovich & Lombard, 1998).

Inclusion refers to "a movement that seeks to create schools and other social institutions based on meeting the needs of all learners as well as respecting and learning from each other's differences" (Salend & Garrick Duhaney, 1999, p. 114). A teacher's attitude about inclusion of students with ID in the classroom is important to consider because it is the teacher's responsibility to provide opportunities for the ID student. If the general and special educator's attitude is more negative toward inclusion, then including ID students in inclusive settings may not be a positive or beneficial learning experience (Daane et al., 2000). Researchers have performed surveys to investigate the perceptions of teachers, administrators, and parents regarding inclusion. Vidovich and Lombard (1998) conducted a 10-question survey with three Fayette County, Pennsylvania school districts to assess perceptions of inclusion. The co-authors administered surveys to approximately 60 teachers, 36 parents, and 18 administrators of approximately 12,000 students. The results of the surveys showed that respondents' answers were very similar across types of respondents. Parents of children with disabilities felt positive about the process of inclusion, but they did not feel that they possessed enough information about the IEP process. They were willing to work with teachers and administrators as a team for the appropriate placement of their child. Teachers were hesitant to have students with disabilities in their general classrooms and 50% in one of the districts said they were unwilling to have students with ID in their classes. Most teachers were, however, willing to attend training. Administrators' answers to the survey showed that, although they encouraged their teaching staff to accept all students in their classes, even those with disabilities, they had a problem with finding the time for scheduling general and special education staff to collaborate. These results were typical of early inclusion attitudes and perceptions of teaching staff and parents. The researchers found that teachers did not want to take the time to work with students with ID, and parents did not have enough information about inclusion to understand the benefits and learning opportunities for their child. Jobe, Rust, and Brissie (1996) conducted a study where 162 classroom teachers from 44 states who were asked to complete a questionnaire on inclusion. The participants were 45 males and 117 females. Twenty-nine of the teachers had special education experience and 138 of the teachers had taught for over 6 years. Importantly, 72 teachers

stated they had had no training on inclusion. The results of the study were rather neutral, and much Teacher attitude depended “on the type of disabled child placed in their classroom” (Jobe et al., 1996, p.152). Results also indicated that education levels were inversely related to perceptions of inclusion. The higher the education level, the more negative the attitude regarding inclusion. This study made it clear that more research needed to be done on inclusion and teachers’ attitudes.

Teacher attitudes toward inclusion are important to understand so that educators can be properly trained to make inclusion successful. Monahan, Marino, and Miller (1996) performed a study to evaluate teacher attitudes toward inclusion in the state of South Carolina. The researchers obtained 342 surveys that had 25 statements that the teachers reacted to on a five-point scale from *strongly agree* to *strongly disagree* (1996). Results indicated that 72% of respondents stated inclusion will not work because of resistance of general education teachers. Seventy-five percent felt general education teachers do not have the skills to teach students with special needs, and 51% of respondents felt that it was the special education teachers who should have the primary responsibility of teaching students with special needs. Researchers found that 84% of respondents indicated both general education and special education teachers should collaborate with all students with special needs, but 63% felt it would create difficulties to have the special education teacher in the general education classroom. Monahan et al. (1996) found that collaboration is key for educating students with special needs or ID, and that “there should be continuous pre-service and in-service education focusing on attitudes that enable all teachers to work effectively with students who may have special needs”(p. 320).

Another study that investigated the perceptions of elementary teachers, both general and special education, and building administrators toward inclusive education was performed by Daane, Beirne-Smith, and Latham (2000). The purpose was to determine the attitudes and beliefs administrators and teachers had toward inclusion and if there were differences that needed to be addressed by the school district. The study was conducted in a school district of approximately 8,000 students in the Southeast. A detailed review of literature was followed by a survey administered to 324 elementary general education teachers, 42 elementary special education teachers, and 15 administrators. The survey used a Likert-type scale ranging from 1-4 (strongly disagree to strongly agree) and contained 24 items. There was also an interview portion of the study where 12 of the participants were individually interviewed. These consisted of four general education teachers, four special educators, and four administrators. The results of the study showed that they all felt that general education and special education teachers cooperate when planning IEPs and using team teaching in inclusive classrooms, but all three groups of participants believed that both groups of teachers do not feel comfortable collaborating with each other. All three groups also felt that general educators were not properly skilled or trained in the area of collaborations, and that teacher programs need to do more to better prepare general education teachers to accommodate all ranges of students. Both teachers and administrators agree that students with disabilities have a basic right to education in the general education classroom, but not all students can receive an effective education in an inclusive setting (p. 336). An area of disagreement between teachers and administrators in the study concerned management. General education and special education teachers both felt that when students with disabilities were present in the general education

classroom management problems increased. Administrators did not agree with this statement. This suggested that administrators may not be completely aware of how the classroom is managing in an inclusive situation and how inclusion affects the classroom and students. This study emphasizes the need for collaboration and how administrators and teachers must work together to provide a supportive learning environment for all students.

Although the process of inclusion has been researched and reviewed, it is unclear if specific in-service training will change a teacher's opinion about inclusion. No research was found that systematically evaluated changes in perceptions of teachers (general or special education) associated with in-service training. Further, no research was found gauging the relationship of in-service training on the perceptions of special educators in comparison to general educators. Therefore, the purpose of the current study is to determine whether training will alter teachers' perceptions of inclusion of children with ID as measured by questionnaire surveys distributed before and after an in-service training session. The research question is as follows: given 48 general education and special education school teachers in a group setting, will a 60-min in-service training session on the benefits of inclusion have an effect on the perception of the participants regarding students with ID based on data from surveys administered before and after the training?

## **Method**

### **Participants and Setting**

Twenty-two general education and 26 special education teachers participated, making a total of 48 participants. Ninety percent of the participants taught on the elementary school level and had a variety of students with varying cognitive levels in their class. Eight percent of the participants were male and 92% female. The participants were chosen because they all worked for the same school district, had students with similar characteristics in the classroom, as well as similar previous training opportunities. All participants had at least a baccalaureate degree and held a current teaching license. Of the 48 participants, 54% currently held a special education endorsement. Of the 48 participants, 47 had special education experience and 33 had students with intellectual disabilities (ID) in their classroom this calendar school year. Many of the general educators had special education experience and had taught students with intellectual disabilities. Of the 22 general education participants, 23% taught for 0-10 years, 32% taught for 11-20 years, and 45% taught for 21-35 years. Of the 26 special education participants, 78% taught for 0-10 years, 18% taught for 11-20 years, and 4% taught for 21-35 years.

The training setting was held in a media center with tables and chairs set up for all of the participants. A large screen was in front of the room for projection purposes. Three sessions were held: one for general educators, one for special educators, and a third for both special educators and general educators who were unable to attend the earlier trainings. The first session was held at an elementary school where 16 general education teachers participated. The second session was held at the Davis School District (DSD) Vista training building as a cluster meeting where four special education teachers

participated in the same format. The third session was also held at the DSD Vista training building as a cluster meeting where 28 general and special education teachers participated in the same format as the previous sessions.

### Pre-test

Upon arrival, the participants first signed an informed consent form. Second, participants filled out a brief demographic information form (Appendix A). Third, participants completed a 20-statement pre-test consisting of statements about inclusion perceptions. The pre-test statements are shown in Table 1.

Table 1

#### *Survey of Special Education and General Education Teacher Attitudes on Inclusion* Inclusion Pre and Post-test

A	B	C	D	E
Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1. I feel that inclusion of students with Intellectual Disabilities (ID) in the general education classroom is not important and unnecessary.				
A	B	C	D	E
2. General education teachers have been trained adequately to teach students with ID.				
A	B	C	D	E
3. Both general education and special education teachers need to collaborate to teach students with ID in the general education setting.				
A	B	C	D	E
4. I don't know how to adapt materials for students with ID for inclusion in the general education classroom.				
A	B	C	D	E
5. It is difficult to meet the needs of students with ID in the general education classroom.				
A	B	C	D	E
6. Students with ID take away from the teacher's time in the general education classroom.				
A	B	C	D	E
7. Most students with ID do not benefit from lesson materials in the general education classroom.				
A	B	C	D	E
8. Teachers of students with ID are able to make adaptations for students in a variety of general education activities.				
A	B	C	D	E
9. Same aged peers are not accepting of students with ID.				
A	B	C	D	E



10. Peer tutors are an effective way to help support students with ID in the general education classroom.

A B C D E

11. All students with disabilities have the legal right to be educated in the least restrictive environment.

A B C D E

12. Most students with ID can learn more appropriate social skills when included in general education settings.

A B C D E

13. Para-professionals are not utilized efficiently throughout general education settings.

A B C D E

14. Co-teaching among general education and special education teachers is time consuming.

A B C D E

15. Some academic learning can be taught in an inclusive setting for students with ID.

A B C D E

16. It is difficult for a teacher to manage behaviors of students with ID in the classroom.

A B C D E

17. As a teacher I can help create materials for lessons for students with ID.

A B C D E

18. Families need to be a part of the collaboration process and work with special and general educators.

A B C D E

19. Most students with ID benefit when taught in an inclusive classroom.

A B C D E

20. I feel comfortable and adequate as a teacher having a student with ID in my classroom.

A B C D E

### **Inclusion Training for Special Education and General Education Teachers**

The objective of the training module was to provide information for teachers to help them understand the reason and benefits for inclusion, as well as provide information and materials they can use in their classroom. I conducted the training and collected all data. Following collection of the pre-tests, the training began with information in a PowerPoint® presentation that addressed the 20 survey statements. Training was divided into three categories: (a) collaboration, (b) benefits of inclusive education for students with and without disabilities, and (c) classroom management supports for instruction and

behavior. Collaboration was discussed first. Benefits of collaboration that were discussed included (a) co-planning, (b) increased parent participation, and (c) development and use of inclusion aids and supports. Legal responsibilities of both special education and general education teachers were mentioned, including: (a) participation in the IEP development; (b) IEP team membership; and (c) IEP implementation of specific goals of the student with disabilities in the least restrictive environment (LRE) (Harrington et al., 2007, p. 59-60).

Training continued with a description of the benefits of inclusion for students with and without ID and elaborating on each of them. Some of the benefits discussed were: (a) that students with ID form friendships; (b) that students increase social imitations; relationships, and networks with others; (c) that students model appropriate behavior from role models in the general education setting; (d) that students generalize skills across settings; and (e) that students increase their independence in the community (Salend & Garrick Duhaney, 1999).

Topics that were discussed in regards to students without disabilities included: (a) increased appreciation and acceptance of individual differences, (b) increased respect for all people, (c) opportunities to help and assist students with ID, (d) increased understanding and acceptance of diversity, and (e) increased social skills by modeling appropriate behavior for all students.

The final section of the training consisted of classroom management supports for instruction and behavior. I described lesson adaptations, use of peer tutors, differentiated instruction, and basic behavior management. A curriculum ladder worksheet was presented, on which an educator can visually see how the student can participate in a particular lesson. I then described how peer tutors can be a useful resource who help students with ID participate in activities. The benefits of a peer support system from the perspective of the teacher were discussed. I described differentiated instruction, that is, how the teacher can use specific strategies so that educators are taking certain steps that guarantee that all students are learning. Lastly, I described behavior management.

The training session ended with six minutes of clips from the video titled *Including Samuel* (Habib, 2009). The purpose of the video was to visually show how a student with ID had been successfully included in his local, general education classroom. The video represented how general and special education teachers can work as a team for the benefit of all students in the classroom. I pointed out that we each can make a difference in the lives of students with disabilities. The format for the training of the special educators and final training for general and special educators were conducted the same way. Time was allocated at the end of each session to address individual questions.

### **Post-test**

Following the session, the 20-statement post-test was re-administered to the participants. The post-test was comprised of the same questions as the pre-test, but in varied order.

### **Data Analysis and Reporting**

Data consisted of percentages of respondents per rating category (Strongly Agree, Agree,

etc.) per survey item. Data were analyzed separately per survey item and per general versus special educator. Data from general and special education respondents were examined separately. For both general and special education respondents, pre-test and post-test data for each survey item were compared to discern differences in ratings. Additionally, general and special education respondent data for each survey item were compared to discern differences in ratings. I forwarded the data to my principal.

## Results

Of the 48 post-tests that were administered, 100% of them were returned. The results of my project show that general education and special education participants shifted their perceptions towards favoring inclusion after the 60-min training session. On average, 51.36% of the general educators' ratings of statements changed from pre-test to post-test changed, and 42.88% of the special educator's ratings of statements changed from the pre-test to the post-test. As shown in Table 2, general education participants' ratings of statements shifted to become more favorable of inclusion in post-test compared to pre-test. Table 2 presents the percentage of general education participants' who respond to each of five possible ratings (Strongly Agree, Agree, Neutral, Disagree, and Strongly Disagree) to the pre-test and post-test statements. There was no inter-scorer reliability on participants' ratings.

Table 2

### *Pre-test and Post-test Data from General Educators According to Each Statement*

1. I feel that inclusion of students with Intellectual Disabilities (ID) in the general education classroom is not important and unnecessary.

Strongly Agree PRE-TEST 9%	Agree 0%	Neutral 9%	Disagree 32%	Strongly Disagree 50%
POST-TEST 4.5%	0%	4.5%	32%	59%

2. General education teachers have been trained adequately to teach students with ID.

Strongly Agree PRE-TEST 0%	Agree 0%	Neutral 13%	Disagree 64%	Strongly Disagree 23%
POST-TEST 0%	27%	18%	55%	0%

3. Both general education and special education teachers need to collaborate to teach students with ID in the general education setting.

Strongly Agree	Agree 41%	Neutral 0%	Disagree 0%	Strongly Disagree
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PRE-TEST 54.5%				4.5%
POST-TEST 50%	32%	9%	4.5%	4.5%

4. I don't know how to adapt materials for students with ID for inclusion in the general education classroom.

Strongly Agree PRE-TEST 4.5%	Agree 45.5%	Neutral 14%	Disagree 36%	Strongly Disagree 0%
POST-TEST 0%	18%	9%	59%	14%

5. It is difficult to meet the needs of students with ID in the general education classroom.

Strongly Agree PRE-TEST 13.5%	Agree 64%	Neutral 13.5%	Disagree 9%	Strongly Disagree 0%
POST-TEST 4.5%	41%	9%	32%	13.5%

6. Students with ID take away from the teacher's time in the general education classroom.

Strongly Agree PRE-TEST 4.5%	Agree 23%	Neutral 36%	Disagree 23%	Strongly Disagree 13.5%
POST-TEST 4.5%	32%	13.5%	36.5%	13.5%

7. Most students with ID do not benefit from lesson materials in the general education classroom.

Strongly Agree PRE-TEST 4.5%	Agree 18%	Neutral 32%	Disagree 27.5%	Strongly Disagree 18%
POST-TEST 0%	4.5%	9%	59%	27.5%

8. Teachers of students with ID are able to make adaptations for students in a variety of general education activities.

Strongly Agree PRE-TEST 23%	Agree 45%	Neutral 23%	Disagree 9%	Strongly Disagree 0%
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POST-TEST 68%	27.5%	0%	4.5%	0%
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9. Same aged peers are not accepting of students with ID.

Strongly Agree PRE-TEST 0%	Agree 4.5%	Neutral 0%	Disagree 54.5%	Strongly Disagree 41%
POST-TEST 4.5%	0%	4.5%	36.5%	54.5%

10. Peer tutors are an effective way to help support students with ID in the general education classroom.

Strongly Agree PRE-TEST 27.5%	Agree 54.5%	Neutral 9%	Disagree 9%	Strongly Disagree 0%
POST-TEST 54.5%	36.5%	4.5%	0%	4.5%

11. All students with disabilities have the legal right to be educated in the least restrictive environment.

Strongly Agree PRE-TEST 64%	Agree 27%	Neutral 4.5%	Disagree 0%	Strongly Disagree 4.5%
POST-TEST 72.5%	23%	0%	4.5%	0%

12. Most students with ID learn more appropriate social skills when included in general education settings.

Strongly Agree PRE-TEST 18%	Agree 54.5%	Neutral 14%	Disagree 9%	Strongly Disagree 4.5%
POST-TEST 36.5%	54.5%	9%	0%	0%

13. Para-professionals are not utilized efficiently throughout general education settings.

Strongly Agree PRE-TEST 0%	Agree 14%	Neutral 27%	Disagree 41%	Strongly Disagree 18%
POST-TEST 0%	50%	9%	23%	18%

14. Co-teaching among general education and special education teachers is time consuming and difficult.

Strongly Agree PRE-TEST 18%	Agree 32%	Neutral 27%	Disagree 23%	Strongly Disagree 0%
POST-TEST 9%	45.5%	18%	23%	4.5%

15. Some academic learning can be taught in an inclusive setting for students with ID.

Strongly Agree PRE-TEST 14%	Agree 72.5%	Neutral 9%	Disagree 0%	Strongly Disagree 4.5%
POST-TEST 41%	45%	14%	0%	0%

16. It is difficult for a teacher to manage behaviors of students with ID in the classroom.

Strongly Agree PRE-TEST 9%	Agree 50%	Neutral 27.5%	Disagree 9%	Strongly Disagree 4.5%
POST-TEST 9%	27%	14%	45.5%	4.5%

17. As a teacher, I can help create materials for lessons for students with ID.

Strongly Agree PRE-TEST 4.5%	Agree 50%	Neutral 18%	Disagree 23%	Strongly Disagree 4.5%
POST-TEST 36.5%	50%	9%	0%	4.5%

18. Families need to be a part of the collaboration process and work with special and general educators.

Strongly Agree PRE-TEST 59%	Agree 22.5%	Neutral 14%	Disagree 0%	Strongly Disagree 4.5%
POST-TEST 50%	41%	4.5%	4.5%	0%

19. Most students with ID benefit when taught in an inclusive classroom.

Strongly Agree PRE-TEST 22.5%	Agree 50%	Neutral 14%	Disagree 9%	Strongly Disagree 4.5%
POST-TEST 50%	41%	4.5%	4.5%	0%

20. I feel comfortable and adequate as a teacher having a student with ID in my classroom.

Strongly Agree PRE-TEST 32%	Agree 36.5%	Neutral 18%	Disagree 9%	Strongly Disagree 4.5%
POST-TEST 32%	41%	18%	9%	0%

Table 3

*Pre-test and Post-test Data from Special Educators According to Each Statement*

1. I feel that inclusion of students with Intellectual Disabilities (ID) in the general education classroom is not important and unnecessary.

Strongly Agree PRE-TEST 8%	Agree 4%	Neutral 0%	Disagree 38%	Strongly Disagree 50%
POST-TEST 0%	8%	0%	30%	62%

2. General education teachers have been trained adequately to teach students with ID.

Strongly Agree PRE-TEST 0%	Agree 0%	Neutral 8%	Disagree 46%	Strongly Disagree 46%
POST-TEST 0%	4%	8%	58%	30%

3. Both general education and special education teachers need to collaborate to teach students with ID in the general education setting.

Strongly Agree PRE-TEST	Agree 19%	Neutral 0%	Disagree 8%	Strongly Disagree 4%
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69%				
POST-TEST 73%	19%	0%	8%	0%

4. I don't know how to adapt materials for students with ID for inclusion in the general education classroom.

Strongly Agree PRE-TEST 8%	Agree 23%	Neutral 15%	Disagree 42%	Strongly Disagree 12%
POST-TEST 0%	15%	4%	42%	39%

5. It is difficult to meet the needs of students with ID in the general education classroom.

Strongly Agree PRE-TEST 12%	Agree 28%	Neutral 27%	Disagree 15%	Strongly Disagree 8%
POST-TEST 4%	19%	27%	34%	16%

6. Students with ID take away from the teacher's time in the general education classroom.

Strongly Agree PRE-TEST 0%	Agree 23%	Neutral 19%	Disagree 46%	Strongly Disagree 12%
POST-TEST 0%	8%	31%	42%	19%

7. Most students with ID do not benefit from lesson materials in the general education classroom.

Strongly Agree PRE-TEST 4%	Agree 4%	Neutral 23%	Disagree 54%	Strongly Disagree 15%
POST-TEST 0%	0%	4%	54%	42%

8. Teachers of students with ID are able to make adaptations for students in a variety of general education activities.

Strongly Agree PRE-TEST 34%	Agree 50%	Neutral 8%	Disagree 4%	Strongly Disagree 4%
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POST-TEST 58%	38%	0%	0%	4%
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9. Same aged peers are not accepting of students with ID.

Strongly Agree PRE-TEST 4%	Agree 12%	Neutral 8%	Disagree 38%	Strongly Disagree 38%
POST-TEST 8%	8%	0%	46%	38%

10. Peer tutors are an effective way to help support students with ID in the general education classroom.

Strongly Agree PRE-TEST 54%	Agree 42%	Neutral 4%	Disagree 0%	Strongly Disagree 0%
POST-TEST 77%	23%	0%	0%	0%

11. All students with disabilities have the legal right to be educated in the least restrictive environment.

Strongly Agree PRE-TEST 77%	Agree 19%	Neutral 0%	Disagree 4%	Strongly Disagree 0%
POST-TEST 84%	12%	0%	4%	0%

12. Most students with ID learn more appropriate social skills when included in general education settings.

Strongly Agree PRE-TEST 46%	Agree 38%	Neutral 8%	Disagree 8%	Strongly Disagree 0%
POST-TEST 54%	46%	0%	0%	0%

13. Para-professionals are not utilized efficiently throughout general education settings.

Strongly Agree PRE-TEST 12%	Agree 27%	Neutral 23%	Disagree 27%	Strongly Disagree 11%
POST-TEST 15%	23%	35%	23%	4%

14. Co-teaching among general education and special education teachers is time consuming and difficult.

Strongly Agree PRE-TEST 8%	Agree 50%	Neutral 31%	Disagree 11%	Strongly Disagree 0%
POST-TEST 4%	46%	19%	27%	4%

15. Some academic learning can be taught in an inclusive setting for students with ID.

Strongly Agree PRE-TEST 23%	Agree 69%	Neutral 8%	Disagree 0%	Strongly Disagree 0%
POST-TEST 42%	58%	0%	0%	0%

16. It is difficult for a teacher to manage behaviors of students with ID in the classroom.

Strongly Agree PRE-TEST 8%	Agree 42%	Neutral 27%	Disagree 19%	Strongly Disagree 4%
POST-TEST 0%	19%	19%	50%	12%

17. As a teacher I can help create materials for lessons for students with ID.

Strongly Agree PRE-TEST 46%	Agree 46%	Neutral 8%	Disagree 0%	Strongly Disagree 0%
POST-TEST 69%	27%	4%	0%	0%

18. Families need to be a part of the collaboration process and work with special and general educators.

Strongly Agree PRE-TEST 58%	Agree 38%	Neutral 4%	Disagree 0%	Strongly Disagree 0%
POST-TEST 50%	30%	12%	8%	0%

19. Most students with ID benefit when taught in an inclusive classroom.

Strongly Agree PRE-TEST 38.5%	Agree 38.5%	Neutral 23%	Disagree 0%	Strongly Disagree 0%
POST-TEST 46%	35%	15%	4%	0%

20. I feel comfortable and adequate as a teacher having a student with ID in my classroom.

Strongly Agree PRE-TEST 58%	Agree 23%	Neutral 19%	Disagree 0%	Strongly Disagree 0%
POST-TEST 85%	15%	0%	0%	0%

*General educators' perceptions.* Table 2 shows that the general education participants' perceptions of inclusion for students with ID changed after receiving training on inclusion. As the data show, almost all of the statement percentages changed after the 60-min training. Statement 2 refers to adequacy of general educator training for inclusion. On this statement, 27% of the general education participants agreed that general education teachers have been trained adequately to teach students with ID on the post-test as compared to 0% on the pre-test. Statement 8 states that teachers of students with ID are able to make adaptations for students in a variety of general education activities. In the pre-test, 23% strongly agreed to the statement, but 68% agreed in the post-test showing that 60-min inclusion training was associated with helping teachers to know how to adapt materials for students with ID to be successful in their setting.

Many of the statements pertain to the students in the general education setting and how they will behave there. Some examples of the participants' ratings of these are in Statement 5, which states that teachers find it difficult to meet the needs of students with ID in the general education classroom. The pre-test shows that 9% of general education participants disagreed with this statement, but the post-test shows that 32% disagreed. On this statement, 23% of general education participants had a change of perception after the training of how ID students' needs may be met. Another statement about behavior is Statement 16 which states that it is difficult for a teacher to manage behavior of students with ID in the classroom. In the pre-test 9% disagreed, but in the post-test 45.5% disagreed, which indicates that general education teachers feel better equipped to manage behavior in their classroom following the training. Statement 10 states that peer tutors are an effective way to help support students with ID in the general education classroom. In the pre-test 27.5% strongly agreed to the statement, but in the post-test, 54.5% strongly agreed emphasizing that the training helped alter teacher's perceptions of how peers can support students. Another statement about peers is Statement 9 where 41% general education teachers reported that they strongly disagreed that same-aged peers are not

accepting of students with ID on the pre-test. The post-test ratings changed to 54.5% who strongly disagreed. Statement 18 refers to teachers' perceptions about families being an important part of the collaboration process and work with special and general educators. Overall, 22.5% of general education participants agreed to this statement in the pre-test, but the percentage increased to 41% in the post-test.

Some statements dealt with the participant's ability and knowledge and how comfortable he/she is with students in the general education classroom. Statement 20 refers to how comfortable and adequate a teacher is having a student with ID in his/her classroom. On this statement, 36.5% agreed on the pre-test, but that score increased to 41% on the post-test. Of the general education participants, 7% of the pre-test to post-test changed statement answers were unfavorable toward inclusion and 93% of the changed statement answers were favorable toward inclusion. An example of where this occurred was in statement 14. On the pre-test, 32% of the general education participants agreed with the statement that co-teaching among general education and special education teachers is time consuming and difficult. On the post-test, the number who agreed increased to 45.5%. This can be explained by the possibility that after the training, general education teachers realized that more responsibility than they originally thought may be necessary to support students with ID in their classroom.

*Special educators' perceptions.* Table 3 shows that the general education participants' perceptions of inclusion for students with ID changed after receiving training on inclusion. Special educator participants' perceptions of inclusion for students with ID altered as well after receiving training. Special educator participants had an average of 42.8% of ratings changed from pre-test to post-test. Of the special education participants, 9% of the pre-test to post-test changed statement answers were unfavorable toward inclusion and 91% of the changed statement answers were favorable toward inclusion. Statement 16 states that it is difficult for a teacher to manage behaviors of students with ID in the classroom. On the pre-test, 42% of the participants agreed with this statement. Even though the amount decreased on the post-test, 19% of the special education participants still agreed with this statement, showing that special educators continued to have doubts after the training about the abilities of teachers with ID students in their classrooms and lack of confidence in managing student problem behavior. Figure 1 shows percentages of general and special education participants with different post-test ratings compared to pretest. As shown, both general and special education responses shifted toward favoring inclusion following training.

*Figure 1.* Percent of general and special education participants with different post-test ratings compared to pre-test.

As the data show in Figure 1, each post-test rating to the 20-statement survey was changed to some degree, with the mean percentage of participants changing scores on the post-test being 51.36%. Ratings to each statement varied with the lowest number of pre-test to post-test change at four out of 22 participants on question #11. The largest number of general education participants' changing a rating from pre-test to post-test was 15 out of 22 participants on survey statement #17. For all survey statements, the mean number of participants changing ratings from pre-test to post-test was 50.55%. There was no inter-scorer reliability on participants' ratings.

Of the 22 general education participants, 93% of the changed ratings to the statements from pre-test to post-test were favorable to inclusion, while 7% were unfavorable to inclusion. Of the 26 special education participants, 91% of the changed ratings to the statements from pre-test to post-test were favorable to inclusion, and 9% were unfavorable to inclusion.

At the end of the post-test, a survey (Appendix A) was administered to all of the participants asking about skills that would help them better accommodate students with disabilities in the classroom. Many participants felt that there were additional skills that would help them to accommodate students with ID in their classroom settings. Some of the skills were areas that the participants wanted more training on in the future. Some of the skills that were frequently suggested were: (a) communication with special education or general education teachers, (b) additional information on how to adapt materials, (c) specific disability training, (d) smaller class sizes, and (e) collaboration ideas.

I considered the amount of years the participants had been teaching. On average, the special education participants had been teaching for less time than the general education participants. Of the 22 general education participants, 23% taught for 0-10 years, 32% taught for 11-20 years, and 45% taught for 21-35 years. Of the 26 special education participants, 78% taught for 0-10 years, 18% taught for 11-20 years, and 4% taught for 21-35 years. The more experienced general education participants may not have been required to have special education courses and training years ago, while newer educators are now required to take more special education training.

*Anecdotal feedback.* Following the general educator's inclusion training session, 63% of the participants asked if I would provide additional training for them to learn more detailed information, help them with adapting curriculum for the general education classroom, and help them with more collaborative efforts. Two weeks following the training, 44% of the participants had reported that they had implemented many of the topics discussed in the training, and had altered their inclusion technique with students with ID in the general education classroom. Following the special educators' inclusion training, 58% of the participants asked if I could come to their school to provide the training to their general education teachers, and administration.

## **Discussion**

This project shows training for teachers about inclusion altered their perception to be more favorable of including students with ID. The percentage of general education participants' changed ratings (average of 51.36%) was higher than those answered by special educator participants, (average of 42.88%). This was expected as special educators have most likely had previous training on inclusion during their coursework for licensing.

Teacher training on the benefits of inclusion serves as a valuable tool on helping teachers gain a positive perception of inclusion of students with ID in the general education setting. The results of this study showed that inclusion training does have an effect on teachers' perceptions as participants in this study became more favorable toward inclusion following the 60-min inclusion training session.

There are some limitations to this study. First, training was limited to a 60-min session. Additional training may have produced more pronounced differences between pre-test and post-test ratings or different patterns of changes in data. Second, although

participants were asked to answer as honestly as possible, there may be some integrity factors that could intercede. That is, perceptions may have changed in association with the training but ratings may have been the same. Third, perceptions of individuals with disabilities usually change with direct exposure and interaction (Scruggs & Mastropieri, 1996). The training session was delivered in the absence of direct exposure necessary to change perceptions. Fourth, changes in perceptions may have been explainable because of a testing threat to internal validity. That is, having taken the pre-test may have biased participants' post-test responses. Finally, data were not analyzed on the extent to which changes in perceptions were associated with grade level of teacher, year's experience, or other variables.

Future research should examine what the relationship is between change in perception and change in teacher behavior. Do teachers really change what they do after reporting changes in perception? The specific kind of training used for teachers across multiple school districts, whether new or old, or varying economic status populations should be examined. This would be helpful to see if specific kinds of training would better benefit these variables and if they are an effective way to train and educate teachers. Longer and more extensive "hands on" training should be implemented and effects analyzed. The effects of special and general educators working collaboratively should be addressed in regards to changes in perceptions. Numerous variables should be examined as it relates to perceptions on inclusion and the extent to which they affect learning for students with disabilities in inclusive environments.

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## Appendix A

Participant # \_\_\_\_\_

What grade do you teach? (circle one): K 1 2 3 4 5 6

What grades have you taught in the past? K 1 2 3 4 5 6

How many years have you taught in public/private schools? (circle one):

0-5 6-10 11-15 16-20 21-25 26-30 31-35

How many years have you taught students with disabilities in your classrooms? (circle one):

0-5 6-10 11-15 16-20 21-25 26-30 31-35

How would you rate **the extent of your experience** teaching students with disabilities in your classroom (circle one):

None Minimal Fair amount Considerable Extensive

How much have you taken advantage of opportunities to include students with disabilities in your classroom? (circle one):

None Minimal Fair amount Considerable Extensive

Do you or have you had a special education licensure? (circle one):

Hold one now Had one in the past Never had sped licensure

Which skills would help you better accommodate students with disabilities in your classroom? (Please check all that apply):

Communication with parents\_\_\_\_\_

Communication with sped teacher\_\_\_\_\_

More aide support\_\_\_\_\_

Time\_\_\_\_\_

Specific disability training\_\_\_\_\_

Specific Curriculum training\_\_\_\_\_

Instruction of how to adapt materials\_\_\_\_\_

More district support\_\_\_\_\_

Smaller class size\_\_\_\_\_

More administrator support\_\_\_\_\_

Collaboration\_\_\_\_\_

More classroom materials/visual aides\_\_\_\_\_

Other\_\_\_\_\_